

## REMARKS

Claims 1, 3, 13, 18, and 19 have been amended to more specifically set forth the invention. Claims 2, 6-11, and 15-17 have been canceled. Claims 1, 3-5, 12-14, and 18-20 remain in the application. Reconsideration of this application is respectfully requested.

### 35 U.S.C. 102 Rejection

Claims 1, 8, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Ehrlich (U.S.P. 4,869,019). Applicant believes that the above amendments overcome this rejection.

Claim 8 has been canceled and claim 12 depends from claim 1. Claim 1 is independent and now includes feet and mating openings and coupling protrusions and mating openings so that a plurality of modules can be vertically and horizontally stacked.

It can be seen from simply viewing the drawings of Ehrlich that his aeroponic apparatus could not be constructed to stack horizontally and vertically so as "to form one of a substantially circular configuration with a

plurality of vertically stacked modules and a substantially elliptical configuration". As can be seen, for example in Ehrlich's FIG. 3, his aeroponic apparatus essentially comes to a point or horizontal line at the top so that another aeroponic apparatus could not be removably attached in a vertically stacked configuration.

Further, claim 1 now specifies at least one arcuate corner module and there is no teaching or suggestion in Ehrlich as to how his structure could be formed in an arcuate configuration.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053, (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Since the structure set forth in claim 1 is substantially different than anything disclosed or suggested by Ehrlich, it is clear that the invention of claims 1 and 12 is not anticipated by Ehrlich.

### 35 U.S.C. 103 Rejections

Claims 1-5, 8, 12-14, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koerper (U.S.P. 5,099,606) and further in view of DiGiacinto (U.S.P. 4,059,922). Applicant respectfully traverses this rejection.

Claims 1, 13, and 20 are independent claims in this group. Claim 1 is exemplary and specifies "a pump in liquid communication with the reservoir and a manifold and distribution conduits in liquid communication with the pump and constructed and positioned to supply liquid nutrient solution from the reservoir to at least roots of plants positioned in the plant supporting structure".

Koerper discloses a plant-cultivation board for vertical epiphyte planting. The major problem he is solving is the release or detachment of the plants from the plant-cultivation board for replanting. As is understood by those of ordinary skill in the art, epiphytes are plants that grow nonparasitically upon another or are air plants. In Koerper's plant-cultivation board, for example, the internal cavity is filled with plant substrate (SUMMARY OF THE INVENTION, Col. 1, lines 50-66). The epiphyte plants are attached to the fronts of the slide-in plates 13 by wires

extending through openings 17 and the roots are directed through openings 21 into the plant substrate.

Even if the bottom of Koerper's plant-cultivation board were somehow modified to act as a reservoir, placing a pump and a manifold in the plant substrate within the internal cavity would render not only the pump and manifold inoperative but would make the entire structure unsuitable for its intended purpose. The Examiner cannot simply select components that look similar and substitute them at the Examiner's discretion. There must be some basis in the references. If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Clearly, there is no suggestion for placing a recirculating pump within the plant substrate of Koerper's plant-cultivation board. Since the Examiner's suggested combination of Koerper's plant-cultivation board for vertical epiphyte planting and DiGiacinto's sprayer hydroponic grower would be inoperative, there is no suggestion or motivation to make the proposed modification and applicant's claimed invention is not obvious.

Therefore, claims 1-5, 8, 12-14, 17 and 20 are not obvious in view of any proper combination of Koerper and DiGiacinto.

Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koerper, (U.S.P. 5,099,606) and further in view of DiGiacinto, (U.S.P. 4,059,922) as applied to the above claims, and further in view of Flum (4,930,643). Applicant respectfully traverses this rejection.

Claim 6 has been canceled and the limitations added to claim 1. Similarly, claim 15 has been canceled and the limitations added to claim 13. Therefore, applicant will address the Examiner's remarks to claims 1 and 13.

For the reasons stated in the above rejection, the Examiner's suggested combination of Koerper and DiGiacinto would be inoperative and, therefore, is improper. Flum simply discloses modular shelves and would not suggest to one skilled in the plant growing art how to stack plant growing modules. For example, DiGiacinto discloses a wedge shaped sprayer hydroponic grower. It is clear just from the drawings that these growers could not be stacked vertically as called for in claims 1 and 13. Also, Koerper illustrates a slide-in plate 13 as the upper side of his plant-

cultivation board. Clearly, he is not suggesting vertical stacks of his plant-cultivation boards since plants on the upper slide-in plate would be crushed. Where then is the suggestion or motivation to combine the references as suggested by the Examiner?

Also, applicant believes that Flum is nonanalogous art and cannot be considered. The Examiner must determine what is "analogous prior art" for the purpose of analyzing the obviousness of the subject matter at issue. "In order to rely on a reference as a basis for the rejection of an applicant's invention the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problems with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

Clearly, the shelves of Flum are not "in the field of applicant's endeavor" since they have nothing to do with plant growing apparatus. Also, Flum does not appear to be "reasonably pertinent to the particular problems with which the inventor was concerned." Therefore, Flum is nonanalogous art and cannot be considered by the Examiner in the present rejection.

Further, both claims 1 and 13 now specifically state:

each module further including feet extending downwardly from the bottom wall and the top wall including mating openings for receiving the downwardly extending feet of a vertically adjacent module for vertical stacking;

each module further including coupling protrusions extending outwardly from one of the opposed side walls with another of the opposed side walls including mating openings for receiving coupling protrusions of a horizontally adjacent module for horizontal stacking;

the plurality of modules including at least one module in which the inner and outer walls and the bottom and top walls are horizontally straight to form a straight sided module;

the plurality of modules including at least one module in which the inner and outer walls and the bottom and top walls are horizontally arcuate to form an arcuate corner module; ... .

Clearly, neither Koerper, DiGiacinto, nor Flum disclose "feet extending downwardly from the bottom wall and the top wall including mating openings" or "coupling protrusions extending outwardly from one of the opposed side walls with another of the opposed side walls including mating openings". Whether or not the shelves of Flum, for example, could be stacked is not the invention. Claim 1, for example, specifically calls for "the plurality of modules are stacked horizontally and vertically and removably affixed together using the feet and mating openings and the coupling protrusions and mating openings, to form one of a substantially circular configuration with a plurality of vertically stacked modules and a substantially elliptical

configuration." Since Flum does not disclose feet and mating openings, no combination of Koerper, DiGiacinto, or Flum can be made that is similar to applicant's claimed structure. Therefore claims 1 and 13 are not obvious in view of any proper combination of Koerper, DiGiacinto, and Flum.

Claims 7, 9-11, 16, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koerper, (U.S.P. 5,099,606) and further in view of DiGiacinto, (U.S.P. 4,059,922) and Flum (4,930,643) as applied to the above claims, and further in view of Bouler (U.S.P. 6,269,589). Applicant respectfully traverses this rejection.

Claims 7 and 9-11 have been canceled and the limitations included in claim 1. Claim 16 has been canceled and the limitations included in claim 13. Claims 18 and 19 are dependent on claim 13. Therefore, applicant will address the Examiner's remarks in this rejection to claims 1 and 13.

For all of the reasons stated above in connection with the above rejection, applicant's claimed invention is not obvious in view of any proper combination of Koerper, DiGiacinto, and Flum.



Bouler discloses planters for trees and poles that can be connected together to extend around a tree or pole. However, Bouler's planters do not include a reservoir or a pump in liquid communication with the reservoir and a manifold and distribution conduits in liquid communication with the pump. Bouler's planters are simply arcuate containers that hold soil and plants in the soil (i.e. potted plants).

Both claims 1 and 13 specify "each module further including feet extending downwardly from the bottom wall and the top wall including mating openings for receiving the downwardly extending feet of a vertically adjacent module for vertical stacking". Clearly, Bouler's planters cannot be stacked vertically because upper planters would rest on and crush plants in the lower planters. Therefore, vertical stacking would render Bouler's planters inoperative for their intended purpose. Thus, there is no suggestion or motivation to make the proposed modification, *In re Gordon*.

Using the alleged vertical stacking of Flum and the horizontal stacking of Bouler to stack the plant-cultivation boards of Koerper, as suggested by the Examiner, would not result in applicant's claimed structure. Both claims 1 and 13 now specifically state "each module further including feet extending downwardly from the bottom wall and the top wall including mating openings for receiving the downwardly

extending feet of a vertically adjacent module for vertical stacking". No such feet or mating openings are showed or suggested in any of the references.

In view of the above arguments, claims 1, 3-5, 12-14, and 18-20 are believed to be allowable. Reconsideration and a speedy allowance is respectfully requested.

Should there be any questions or remaining issues regarding the foregoing, Examiner is cordially invited to telephone the undersigned attorney for a speedy resolution.

Respectfully requested,

A handwritten signature in black ink, appearing to read 'Robert A. Parsons', with a long, sweeping horizontal stroke at the end.

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